

PBDE End-of-Life Advisory Committee

June 13, 2006

Committee Concerns

- Relative risk from End-of-Life practices v. product use
- Understand exposure pathways
- Worker safety
- No landfill ban without a plan
- Define how sampling data will be used
- Understand unintended consequences
- Understand how EOL options affect local government and new e-waste bill
- Options should promote strong recycling system

Since the last meeting...

- White paper summarizing available information
- Focus on four end-of-life practices
- Literature search
- Sampling plan
- Recommended approach

Overview of PBDE CAP

- Two year process completed in January, 2006
- Joint report from Departments of Health and Ecology
- Stakeholder involvement
- Evaluated available literature and data supplied by the stakeholders
- Included an assessment of alternatives to PBDEs in products and Cost/Benefit Analysis

Key Recommendations

- Penta and Octa BDE should be banned immediately
- Deca-BDE should be banned provided a safer, effective and affordable alternative is available
- The state's purchase of products containing PBDEs should be restricted
- DOH should develop materials for educating the public on how to minimize exposure to PBDEs
- Ecology should establish appropriate disposal practices for products containing flame retardants

CAP Recommendation

“Ecology should establish a process to evaluate and determine appropriate disposal and recycling practices for products containing PBDEs, including potential financing options.”

1. Identify known information about potential pathways (including worker exposure and releases to the environment)
2. Conduct a literature search
3. Establish where monitoring of PBDEs associated with EOL is warranted

E-Waste Bill

- Free collection and recycling of computers and televisions
- Effective date is January 1, 2009
- Paid for by manufacturers
- Available statewide
- Expect all available e-waste will be recycled under this system

E-waste and the EOL process

- Chemicals of concern include lead, mercury, brominated flame retardants, and hexavalent chromium
- EPA developing e-waste processing Best Management Practices (BMPs)
- E-waste bill requires Ecology to develop performance standards for collectors and processors

Scope

Four focus areas- priority practices

- Auto fluff (auto shredder residue)
- Electronics recycling
- Landfilling/incineration
- Waste water treatment/biosolids

Expected Outcome

A set of recommendations to Ecology, DOH and local health departments that:

- Encourage and preserve recycling in Washington AND
- Reduce the release of PBDEs to the environment from disposal and recycling practices

Two types of sources of PBDEs

- Releases from products not yet made
- Releases from products already in use

How will we know a practice is adequate?

Standards Approach

- Sample the releases (leachate, air, dust, sediment, effluent, biosolids, etc.)
- Compare the concentration found to a standard for that media (water quality criteria, NAAQS, discharge limits, etc.)
- Focus efforts on those releases that exceed the standard

Problems with the standards approach

- No standards for any PBDEs have been produced by a state or by EPA for any media
- Very little data available on releases in WA
- Data from the literature also limited
- Developing standards is very time consuming and expensive

How will we know a practice is adequate?

Best Available Technology Approach

- Because PBDEs are PBTs, any reduction in PBDE releases is considered beneficial
- Examine EOL practices independently and recommend cost effective best management practices (BMPs) for each
- Establish baseline- monitor trends

